

WHAT IS CLAIMED IS:

1. An optical disc on which wobbled grooves are concentrically or spirally formed, and physical address information is recorded by modulating groove wobbles,  
5            wherein address information is formed by M wobbles per bit as a basic unit, and the address information is NRZ-recorded, where integer M is the number of wobble waves.
2. An optical disc according to claim 1, wherein  
10           a sync signal used in sync detection of the address information is formed by N wobbles per bit as a basic unit, and the sync signal with that configuration is recorded on the head side of the address information, where integer N is the number of wobble waves and  
15            $M = 2N$ .
3. An optical disc according to claim 2, wherein the sync signal is configured to contain a symbol sequence 010 or 101 which is not present in the address information, and a symbol sequence with a runlength of  
20           not less than 1.
4. An optical disc according to claim 2, wherein the sync signal is configured to always contain a symbol sequence 10001 or 01110.
5. An optical disc according to claim 2, wherein  
25           the sync signal is formed using a pattern, which is selected from signal patterns defined by the configuration of claim 2, and has a largest minimum

Hamming distance to all address information symbols and an out-of-phase sync signal among the defined signal patterns and has a smallest number of phase changes in the sync signal.

5           6. An optical disc according to claim 2, wherein the sync signal is formed using a pattern, which is selected from signal patterns defined by the configuration of claim 2, and has a largest or second largest minimum Hamming distance to all address  
10 information symbols and an out-of-phase sync signal among the defined signal patterns and has a smallest number of phase changes in the sync signal.

          7. An optical disc according to claim 2, wherein the sync signal is formed by suppressing the number of  
15 phase changes in this sync signal to  $BD/3$  or less, where  $BD$  is the number of bit digits of the sync signal.

          8. An optical disc according to claim 2, wherein the sync signal contains a symbol sequence as a run of  
20 odd-numbered "0"s or "1"s as a symbol sequence which is not present in the address information.

          9. An optical disc recording/reproduction apparatus using an optical disc of claim 1, configured to comprise a dedicated detection circuit for detecting  
25 the sync signal.

          10. An optical disc reproduction apparatus configured to reproduce information from an optical

disc on which wobbled grooves are concentrically or spirally formed, and physical address information is recorded by modulating groove wobbles,

5        wherein address information is formed by M wobbles per bit as a basic unit, and the address information is NRZ-recorded, where integer M is the number of wobble waves.

11. A mastering apparatus used to manufacture an optical disc of claim 1.

10        12. A system for recording information on an optical disc on which wobbled grooves are concentrically or spirally formed, and physical address information is recorded by modulating groove wobbles,

15        wherein address information is formed by M wobbles per bit as a basic unit, and the address information is NRZ-recorded, where integer M is the number of wobble waves.